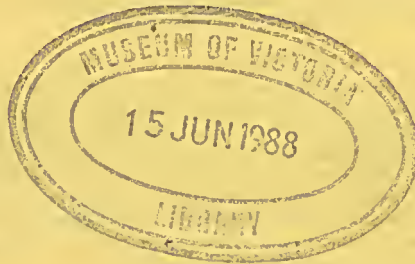


VOL. 18 NO. 3



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VICTORIAN ENTOMOLOGIST



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News Bulletin of
The ENTOMOLOGICAL
SOCIETY of VICTORIA



Membership

Any person with an interest in entomology shall be eligible for Ordinary Membership. Members of the Society include professional, amateur and student entomologists, all of whom receive the Society's News Bulletin, the Victorian Entomologist.

Objectives

The aims of the Society are :

- (a) to stimulate the scientific study and discussion of all aspects of entomology,
- (b) to gather, disseminate and record knowledge of all identifiable Australian insect species,
- (c) to compile a comprehensive list of all Victorian insect species and
- (d) to bring together in a congenial but scientific atmosphere all persons interested in entomology.

Meetings

The Society's meetings are held at Clunies Ross House, National Science Centre, 191 Royal Parade, Parkville, Victoria, at 8 pm on the third Friday of even months, with the possible exception of the December meeting which may be held earlier. Lectures by guest speakers or members are a feature of many meetings at which there is ample opportunity for informal discussion between members with similar interests. Forums are also conducted by members on their own particular interest so that others may participate in discussions.

Annual Subscriptions

Ordinary Member	\$10.00
Country Member	\$ 8.00 (100 km + from GPO)
Student Member	\$ 5.00
Associate Member	\$ 2.00 (no magazine)

No additional fee is payable for overseas posting by surface mail of the News Bulletin. Associate Members, resident at the same address as, and being immediate relatives of an Ordinary Member, do not automatically receive a copy of the Society's publications but in all other respects rank as Ordinary Members.

Contributions to the Victorian Entomologist

The Society welcomes contributions of articles, papers or notes pertaining to any aspect of entomology for publication in the News Bulletin. Contributions are not restricted to members but are invited from all who have an interest. Material submitted should be responsible and original. Statements and opinions expressed are the responsibility of the respective authors and do not necessarily reflect the policies of the Society.

When contributions are typed it would be of great assistance if they are typed on A4 (International Quarto) paper, one and a half spaced with triple spacing between paragraphs and a margin of 3 cm.

Advertising

The charge for advertising is \$5.00 per half page.

Cover illustration by W.N.B. Quick.

Cyria imperialis (Fabricius), Banksia Jewel Beetle (Buprestidae).

MINUTES OF THE GENERAL MEETING, 15 APRIL 1988

The President, Mr K. Walker, opened the meeting at 8.15 pm.

Apologies: D. Crosby, J. Field, T. Now

Present: M. Braby, G. & J. Burns, P. Carwardine,
K. Clark, M. & P. Coupar, I. Faithfull,
R. Field, D. & J. Holmes, M. Hunting,
P. Kelly, F. & R. Mathews, S. Smith,
R. Vagi, B. Vardy

Minutes: Minutes of the February meeting (Vic.Ent.
18:18) were passed.

K. Walker then introduced the speaker, Philip Hicks, formerly of the Garden Advisory Service of the Department of Agriculture but now in private practice as a pest control consultant. Philip gave a most illuminating talk concentrating on environmentally safe methods of pest control and showing slides of many frequently encountered insect pests. The many questions asked both during and after the talk indicated the interest generated. R. Field proposed a vote of thanks.

Treasurer's Report: G. Burns reported a credit balance of \$2528.74 (General Account), \$1812.01 (Le Souff Memorial Award Fund) and \$270.00 (Junior Entomological Encouragement Fund). There are 71 financial members. Received (R. Field/P. Carwardine).

- Exhibits:
1. M. Coupar: A case of moths from a variety of localities including specimens of the Snout Moth Entomota sp. (Lasiocampidae) from which he had raised larvae which were also exhibited, feeding on eucalypt.
 2. K. Clark: Macleay's Swallowtail butterflies from Lake Mountain.
 3. K. Clark: A series of photographs of entomological excursions from the 1930s.
 4. I. Faithfull: A wingless female fly, Boreides subulatus, from Toombullup, NE Vic.
 5. M. Braby: A parasitised pupal case of the Imperial Blue butterfly, Jalmenus evagoras.
 6. M. Braby: A specimen of the Eltham Copper butterfly (Paralucia pyrodiscus lucida) with wings damaged by a bird in the manner described by D. Crosby (Vic.Ent. 18(2):21).

The meeting closed at 10.00 pm.

P. Kelly,
Assistant Hon. Sec.

MINUTES OF COUNCIL MEETING, 20 MAY 1988

The President opened the meeting at 8pm.

Apologies: M. Braby, M. Hunting

Present: J. & G. Burns, P. Carwardine, D. Crosby, I. Faithfull, P. Kelly, T. New.

Minutes of the March Council meeting (Vic. Ent. 18:19) were passed with one amendment (The treasurer's report: amount of the Le Souëf Memorial Fund in dollars should read \$1962, not \$2162) (G. Burns/Crosby).

Correspondence. Detailed and received (Crosby/J. Burns).

Treasurer's Report. G. Burns reported credit balances of \$2627.93 (general account) and \$1812.01 (Memorial Fund).

There are at present 76 financial members. Agreed to transfer \$150 to Junior Encouragement Fund, now totalling \$420.

Editor's Report. I. Faithfull raised several matters of concern.

- i) Costs of recent mailing of E.J. Brill publication notices - the Treasurer to forward invoice.
- ii) Address change for returned publications - this to be changed to the Museum of Victoria, 71 Victoria Crescent, Abbotsford.
- iii) Variations in printing costs to be clarified in consultation with the Treasurer.
- iv) More articles needed.

General Business

- i) Programme. Possible speakers for the August meeting are discussed.
- ii) Nominations of Office-bearers for 1988-1989. Council's nominees are listed below.

President:	K. Walker
Vice-Presidents:	R. Field, M. Hunting
Secretary:	T. New (Assistant: P. Kelly)
Treasurer:	G. Burns
Editor:	I. Faithfull (an assistant editor to be sought)
Excursions Secretary:	P. Carwardine
Council members:	M. Braby, D. Cosby, J. Field, P. Kelly

- iii) T. New tabled, for information, the newly-published greeting cards of the Australian Entomological Society.
- iv) Encouragement of Junior Entomologists. Considerable discussion was held over the best ways to encourage interest in insects.
 - a) There appears to be some uncertainty over the status and future of the Children's Museum.

- b) Provision of display cases and/or books for schools, possibly to be distributed as a result of ballot or competition. Advertisement in 'Contact' (STAV) 'Labling' or 'Labtalk' to be considered to initiate this.
- v) The revised Constitution, and associated documents, were tabled by D. Crosby, and discussed at length. Agreed (Crosby/Kelly) that these now be posted to all members as a basis for ratification at the June meeting.

K. Walker expressed the Society's thanks to D. Crosby for his work on the incorporation and new constitution.

The meeting closed at 9.25.

T. New,
Honorary Secretary.

NOTICE OF SPECIAL MEETING OF THE SOCIETY

to be held at Clunies Ross House, 191 Royal Parade Parkville, at 8 pm on Friday 17 June 1988.

AGENDA

To discuss and if thought fit, pass the following Resolutions:-

- Resolution 1: That David Franklin Crosby of 74 Gipps St, East Melbourne, be authorised to incorporate the Society under the Associations Incorporation Act 1981.
- Resolution 2:- That the Entomological Society of Victoria be incorporated with the following purposes:
 - (a) To stimulate the scientific study and discussion of entomology in all its aspects;
 - (b) to gather, preserve and disseminate knowledge of Australian species of insects;
 - (c) To compile and maintain a list of all known species of insects in Victoria;
 - (d) To bring together in a social and scientific atmosphere all persons interested in entomology.
- Resolution 3:- That the Constitution and Rules as set out in the document so headed, be accepted as the rules of the Society for the purposes of incorporation.

K.L. Walker,
President.

Copies of the Constitution and Rules have been sent to all members along with a letter from the President explaining the incorporation proposal.

BIRDS VERSUS BUTTERFLIES

Jean Brown, 4 McDonnell Avenue, Cundletown, New South Wales, 2430

I was very interested to read David Crosby's article regarding birds attacking butterflies in the last issue of the News Bulletin.

Each year, from the end of November to the latter part of March, we have Dollar birds (Eurystomus orientalis) in the She-oaks in our garden. The parents leave their baby bird, or birds (sometimes there have been two), and go off looking for food for it. A couple of years ago, about the end of February, the young bird was doing its own search for food. One morning it was winging its way round the garden, and it took, on the wing, a Blue Triangle (Graphium sarpedon choredon). It then flew to its usual roosting spot in the She-oak and apparently ate the body of the butterfly, as I saw only one wing float to earth.

Another day, I saw a Black-faced Cuckoo-shrike (Coracina novaehollandiae) take a Cabbage White (Pieris rapae) and once again, only a wing floated to earth from its roosting place.

In the bower of a Satin Bowerbird (Ptilonorhynchus violaceus) at Saltwater, near Taree, I saw the wing of a Blue Triangle among the other blue decorations he had collected. Whether it had taken the butterfly, or just found the wing, I do not know.

The birds here are very keen on the larva of butterflies, but only on these two occasions have I actually seen them take a butterfly. I have seen Wandorers (Danaus plexippus) with wing damage consistent with a bite from a bird's beak, but whether this is so or not, again I am not sure.

We also have Brown Honeyeaters (Lichmera indistincta) which nest in our garden, and one day I saw one with a small, pale moth in its beak fly back to its nest in the tree. This morning (18 April) I saw a Willy Wagtail (Rhipidura leucophrys) trying to catch a Crow (Euplooa)!

I have also seen a Sacred Kingfisher (Halcyon sancta) take a dragonfly, on the wing. I'll keep watching!

COLLECTING IN THE NORTH EAST MOUNTAIN AREA, FEBRUARY 1988

David Holmes, 5 Overbay Avenue, Dromana, Victoria, 3936

My wife and I spent a week in the Bright area to observe what was flying and to collect a few small meths.

Friday February 12. We were in the Falls Creek area. On the meadows near the Mt Cepe sign (that is on the road to Omeo) we observed many Oriexenica orichera flying. These were predominantly females as the males usually fly in January, and what males were about seemed mostly worn. There were quite a few day flying moths around this area and we also collected one Neelucia hobartensis. At Howmans Gap Oriexenica korshawi, O. lathoniella horceus, O. cerreae and Heteronympha selandri were present in reasonable numbers. There was only one Anisynta monticolae, compared with many four years ago. This was possibly due to the roadworks being done with the verges of the road being bare and lacking in the flowers that usually attract the monticolae. At this spot I was hoping to see the small hepialid meth Fraus musca, which usually flies about 4.30 pm, but at 3.30 a severe rain storm ended our observations for the day.

On Monday 15 February we travelled to Meunt Hotham. We commenced our collecting at Beggy Creek where Heteronympha penelope sterope were common. There were a few ragged Heteronympha cerdace around - they usually fly in January. Also collected here were a few O. lathoniella horceus which had just emerged. There were two Oreisplanus munionga. This skipper could be under threat here as cattle could eat the larva in the sedges. Also seen was one Anisynta dominula drachmophera, as well as Geitoneura klugii. O. cerreae were quite common from Brandy Creek, back towards Mt Hotham, there being equal numbers of male and female.

Tuesday February 16 was spent in the Bright area where we collected along the Ovens River. One Paralucia auriflora and one Heteronympha paradelpa female were found. Also sighted was Jalmonus evagras and Heteronympha merope.

Wodnosday 17 February. Mt Buffalo. We collected small day flying moths - not many species. The well known Bogong Moth, Agrotis infusa, was common. Around the bogs we saw many Anisynta dominula drnchmophora, Oriexonica corroae, Vanessa kershawi, V. itoa, Precis villida calybe, Neolucia agricola. Collected two skippers that may be Trapezites eliena.

Thursday February 18 we packed up the caravan and returned home to Dromana, happy to have had another collecting trip in those beautiful mountain ranges in the north east of our Stato.

Reference

David R. Holmes, 1984. Collecting in the North East Mountains. Victorian Entomologist 14(4), 39-40

THE COLOUR QUESTION.

A PALE, BRED SPECIMEN OF GRAPHIUM SARPEDON CHOREDON

Jean Brown, 4 McDonell Avenue, Cundletown, New South Walos, 2430

Reference is made to Pat and Mike Coupar's account of rearing Graphium macloayanum macloayanum and the puzzle of colour-luck in the specimens reared by them (Victorian Entomologist, February 1988). I have had the same experlence in rearing Graphium sarpedon choredon from one of two eggs laid on a small (40 cm) Cnmphor Laurel tree growing in a pot in my bushhouse.

When the eggs hatched I placod the pot in my "roaring cage", still in the bushhouse, and watched them grow. The eggs were luid on 5 December 1981, and both hatched on 11 Decombor, the larvae blackish with little white "tail".

13 December: colour chango to brownish groon;

15 December: both groon, one shed skin;

17 December: white spots on body and four black "horns";
 18 December: other larva shed skin and ate it;
 20 December: larger larva about 25 mm long;
 21 December: larger larva shed skin;
 23 December: larger larva about 37 mm;
 25 December: larger larva about 43 mm;
 26 December: smaller larva died;
 28 December: larva pupated -lovely green- on plant's trunk;
 8 January: eyes showed faintly on pupa;
 12 January: wing outline, faint blue-green and signs of black;
 13 January: female emerged, perfect but "blue" was a greyish,
 blue-green on her wings. Because of the unusual colour I kept her
 till the next day, in case it changed, but there was no change.
 These records are from those made at the time in my notebook.
 Instead of releasing her, I kept her as a specimen.

So there it is, growing in the same place, natural light
 and shade, on the same tree, from egg to imago, and lacking the
 usual colour of wings. Yet, I have grown from eggs, on my
 kitchen window sill, perfect specimens of the Orchard butterfly,
 Wanderer, Lemon Migrant, even a beautiful Emperor - though he was
 by the dining room windows, and I didn't know he had emerged until
 until I found him on the kitchen floor!

Is it only blues and greens that need that something
 "special" from nature? My breeding cage is covered in white mos-
 quito netting, so is well ventilated, and I have raised Lesser
 Wanderers and Wanderers, Admirals and various moths and all were
 perfect, raised in same conditions.

MISSING ISSUES ?

Have you missed out on receiving any recent issues of the
Vic. Ent.? Mistakes can sometimes be made in the mailout and
 the financial status of members. Please do not hesitate to ask
 for missing issues to ensure your collection is complete. Those
 from 14(6) onwards can be obtained from the Hon. Editor. Those
 prior to December 1984 may be harder to obtain and contact
 should be made with the Hon. Secretary.

NOMENCLATURE OF AUSTRALIAN PAPILIONIDAE

Robert H. Fisher,

South Australian Museum, North Terrace, Adelaide, S.A. 5000

The phylogenetic classification of the Papilionidae proposed by Hancock (1983) has resulted in some major changes to the familiar nomenclature of this family. The genus Papilio Linnaeus, for instance, with more than 200 species, is divided now into six genera, with only 14 of the original species remaining in Papilio, and these restricted to North and Central America, Europe and Asia. The genus Ornithoptera Boisduval becomes a subgenus of Troides Hubner, while the North Queensland subspecies Ornithoptera priamus euphorion (Gray) reverts to a full species as Troides euphorion (Gray). Further research (Hancock, 1988) recognises Pachliopta Reakirt as a subgenus of Atrophaneura Reakirt. The South Australian Museum has adopted this classification for the species and drawer labels in its extensive collection of Papilionidae.

For the convenience of lepidopterists the following list of Australian Papilionidae is presented, showing the species names as they appear in Common and Waterhouse (1981), and the corresponding names resulting from Hancock's research.

References

- Common, I.F.B. and Waterhouse, D.F., 1981. Butterflies of Australia. Revised edition. Angus and Robertson, Sydney. 682 pp.
- Hancock, D.L., 1983. Classification of the Papilionidae (Lepidoptera): a phylogenetic approach. Smithersia 2, 1-48
- Hancock, D.L., 1988. A revised classification of the genus Atrophaneura Reakirt (Lepidoptera: Papilionidae). Aust. ent. Mag. 15(1), 7-16.

AUSTRALIAN PAPILIONIDAE

Previous Nomenclature

New Nomenclature

<u>Protographium leosthenes leosthenes</u> (Doubleday)	Unchanged
<u>Graphium macleayanum macleayanum</u> (Leach)	"
<u>Graphium macleayanum wilsoni</u> Couchman	"
<u>Graphium macleayanum moggana</u> Couchman	"
<u>Graphium macleayanum insulum</u> Waterhouse	"
<u>Graphium sarpedon choredon</u> (C & R Felder)	"
<u>Graphium eurypylus lycaon</u> (C & R Felder)	"
<u>Graphium eurypylus nictinus</u> (Waterhouse and Lyell)	"
<u>Graphium macfarlanei macfarlanei</u> (Butler)	"
<u>Graphium agamemnon ligatum</u> (Rothschild)	"
<u>Graphium aristeus parmatum</u> (Gray)	"
<u>Papilio anactus</u> W S Macleay	<u>Eloppone anactus</u> (W S Macleay)
<u>Papilio aegaeus aegaeus</u> Donovan	<u>Princeps aegaeus aegaeus</u> (Donovan)
<u>Papilio aegaeus ormenus</u> Guérin-Ménéville	<u>Princeps aegaeus ormenus</u> Guérin-Ménéville
<u>Papilio fuscus capaneus</u> Westwood	<u>Princeps fuscus capaneus</u> (Westwood)
<u>Papilio fuscus indicatus</u> Butler	<u>Princeps fuscus indicatus</u> (Butler)
<u>Papilio canopus canopus</u> Westwood	<u>Princeps canopus canopus</u> (Westwood)
<u>Papilio ambrax egiptus</u> Miskin	<u>Princeps ambrax egiptus</u> (Miskin)
<u>Papilio ambrax ambrax</u> Boisduval	<u>Princeps ambrax ambrax</u> (Boisduval)
<u>Papilio demoleus sthenelus</u> W S Macleay	<u>Princeps demoleus sthenelus</u> W S Macleay
<u>Papilio ulysses joesa</u> Butler	<u>Princeps ulysses joesa</u> (Butler)
<u>Crossida cressida cressida</u> Fabricius	Unchanged
<u>Crossida cressida cassandra</u> Waterhouse and Lyell	"
<u>Pachliopta polydorus queenslandicus</u> (Rothschild)	<u>Atrophaneura polydorus quoonslandicus</u> (Rothschild)
<u>Ornithoptera priamus pronomus</u> (Gray)	<u>Troides priamus pronomus</u> (Gray)
<u>Ornithoptera priamus poseidon</u> Doubleday	<u>Troides priamus poseidon</u> (Doubleday)
<u>Ornithoptera priamus macalpinei</u> Moulds	<u>Troides priamus macalpinei</u> (Moulds)
<u>Ornithoptera priamus euphorion</u> (Gray)	<u>Troides euphorion</u> (Gray)
<u>Ornithoptera richmondia</u> (Gray)	<u>Troides richmondia</u> (Gray)

OVIPOSITING BEHAVIOUR IN THE SKIPPER HESPERILLA MALINDEVA
LOWER (LEPIDOPTERA : HESPERIIDAE : TRAPEZITINAE)

K.L. Dunn, 5 Regency Avenue, Pinalba, Queensland, 4655
R.C. Manskie, 139 Queen Street, Maryborough, Queensland, 4650

During March 1988 the authors observed the ovipositing behaviour of Hesperilla malindeva at Maroom, south-east Queensland.

A female was observed to fly directly to a small Gahnia plant (probably G. aspora). She settled almost immediately, near the top of a central, vertical blade. Upon settling, her wings were closed above the body and head directed upward. She then began to crawl in reverse down the blade. During this descent, her abdomen slowly oscillated laterally as part of her gait. After descending by this movement to near the base of the centre of the food plant, the female laid a single egg. The distance crawled by the skipper before ovipositing was about 20 cm. She then crawled forward up the same blade toward the top of the Gahnia. Just below the spot where she had originally settled, the female took to flight in an upward fluttering motion. She was then netted and her identification confirmed.

Atkins (1973) described a very similar "backward crawl" prior to oviposition in Prooidosa polysema (Lower). According to Atkins (pers. comm.) this behaviour could possibly be an adaptation for rapid flight amongst particular grasses such as Triodia, and Gahnia. Little information is available in the literature concerning ovipositing behaviour in the Trapezitinae. Atkins and Dunn (1986) did not record a similar "backward crawl" in Hesperilla flavoscons flavescens Waterhouse. Observations on other genera of similar morphology, and in particular other members of the H. malindeva group (see Atkins, 1978) could reveal akin behaviour.

References

Atkins, A. (1973) A new genus Prooidosa for an Australian skipper, Pasma polysema (Lower) (Lepidoptera :

Hesperiliidae, Trapezitinae). J.Aust.ent.Sec. 12(4):253-260

Atkins, A. (1978) The Hesperilla malindeva group from Northern Australia, including a new species (Lepidoptera : Hesperiliidae). J.Aust.ent.Sec. 17(3):205-215

Atkins, A. and K.L. Dunn. (1986) A description of the egg of Hesperilla flavescens flavescens Waterhouse. Victorian Entomologist 16(3):33

Acknowledgement

We thank Andrew Atkins for his comments.

PROTECTED BUTTERFLIES

Ogyris etanes C. and R. Felder

Ogyris idme halmaturia Tepper

Hesperilla flavescens flavescens Waterhouse

In December 1973 the Entomological Society of Victoria placed the two Ogyris listed in a 'Limited Voluntary Protection' category. In February 1986 the Hesperilla became the third butterfly to be listed. The cooperation of members is requested in the observation of the recommended restrictions :-

1. That no more than two specimens be netted by any one collector within any one season.
2. That no larvae or pupae be collected at any time.

'PRELIMINARY DISTRIBUTION MAPS OF BUTTERFLIES IN VICTORIA'
Published by the Entomological Society of Vic.

Maps of the recorded distributions of the 108 species of butterflies known from this state, plus associated information about the ENTREC Scheme. Cost \$10.00 plus \$2.00 postage and handling,

from: David Crosby,
ENTRECS Co-ordinator
74 Gipps Street
East Melbourne, 3002
Tel. 417 6345

ON THE GRAPEVINE

In mid May Dr Tim New, Reader in Zoology at LaTrobe University and Secretary of the ESV, was awarded the Mackerras Medal of the Australian Entomological Society. This honour is awarded biennially for "excellence in entomology" to a member of the Society under the age of 50, selected for the award on the basis of an exceptional record of achievement. The Mackerras Medal was instituted in 1984 to honour the famous Australian medical entomologist, Ian Mackerras, and Tim is the third recipient of this national distinction. Also, at the AGM of the Aust. Ent. Soc. in Brisbane he was elected President of that Society. Tim is off to Malaysia for a couple of months.

Kolvyn Dunn has taken up a teaching position at Maryborough High School (Qld) where he will challenge his students with year 11 maths, biology and science. He will be living at Pialba, about half an hour's drive from Maryborough. In 1989 he will be taking year 12. Kolvyn reports pleasant weather, with about 30 species of butterflies still flying in late May. Not much chance to get a sun tan yet - it rains!

Ray and Nola Manskie send their regards to members. They visited south east Queensland with Rod Eastwood at Easton and saw Alex Burns at Burleigh Heads. Alex was Curator of Entomology at the National Museum, now the Museum of Victoria, and is the same age as Joe Manski, the well known Maryborough lepidopterist.

Mike Braby hopes to continue his formal studies, maybe in 1989. At present he is working up for publication material on the flight period of the Browns.

The Department of Agriculture and Rural Affairs is seeking an Insect Taxonomist to fill the vacancy created by retirement at the Plant Research Institute, Burnley. So far the position has been advertised only internally in the Victorian Public Service.

Grapevine is continued on p.55.

RECENT PUBLICATIONS OF INTEREST

Apple moths causing havoc in vineyard crops. Weekly Times 17 February, p.38. Epiphyas postvittana (Tortricidae) the culprit, particularly in southern Victoria where losses up to 25% have occurred with some varieties. Bacillus thuringensis spray and other recommended control methods. DARA evaluation of pheromone traps.

Biological control of pasture pests. Weekly Times 16 March, p. 16. Adoryphorus couloni (Scarabaeidae) grubs feed underground and cause extensive damage to pasture. Biological control using nematodes has now been tested.

New chemical to control lice and blowflies. Weekly Times 10 Feb., p.35. Hoechst Agrivet product, Sectar, for spray application to sheep. A mixture of cypermethrin and diazanon.

Gayle Austen, Waiting in the wings to weed out pest. The Age 29 Feb., p.7; Injunction on Salvation Jane to stay. Weekly Times 23 March, p.17. An injunction preventing CSIRO releasing biological control insects for the weed Pattersons Curse is to remain in force after a complex legal ruling in the South Australian Supreme Court. Beekeepers obtained the restraining order in 1980 to protect off-season bee food. Herbicide weed control is estimated to cost \$15 million. CSIRO had bred up European leaf mining moths and two colonies of weevils amongst eight identified predators for release if the injunction had been lifted.

Graeme O'Neill, Cove work ruined research - ecologist. The Age 18 May, p.3. Construction work on the infamous Sanctuary Cove development on the Qld. Gold Coast destroyed a long term experiment designed to minimise the risk of mosquito borne diseases. Mosquitoes are now in their greatest concentrations in the area damaged by the developers. Also mentions alarm at proposed end to National mosquito borne disease control prog. which could cost the tourist industry up to \$160 million if a severe outbreak of Ross River virus should occur.

Scientists battle to bug the melaleuca. The Age, 26 May, p.2. Teams of US scientists will soon start Australian investigations for Melaleuca eating insects to control the plant in Florida where it was introduced in 1906 and used to drain wetlands.

A singular fly. New Scientist 14 January, p.30. The rarest fly on earth(!), Exsul singularis, a peculiar 5 cm long creature with huge black wings, has been found for the first time since 1941 by a five year old boy in New Zealand. Illustrated.

Ants know when its dinnertime. New Scientist 14 Jan. p.36. The central American Paraponera clavata has an accurate time sense and can learn when and where its food is likely to be found, a great advantage for a nectar feeder in tropical rainforest.

Recent Publications of Interest (continued)

- Creoning katydids fool hungry bats. New Scientist 14 Jan., p.38. Experiments in Panama show that male katydids used as lures attract bats into mist nets with their songs. Unlike katydids of the clearings, forest katydids have calls that make them difficult to locate, a defensive adaptation against the foliage gleaning bats of the rainforest. They also shake the plants on which they rest so as to send seismic rather than sound signals. (Science 238:64).
- Caterpillars' guide to eating out. New Scientist 21 Jan., p.39. Larvae of Malacosoma americanum (Lasiocampidae) survive and grow better on younger leaves of their foodplant which they mark with pheromone to help others of their species find the best food (Ecological Entomology 12:253).
- R.A. Samson & J.P. Latgé, Atlas of the Entomopathogenic Fungi. Springer Verlag, 1988. Approx 220 pp. A\$120.50. Taxonomy, illustrations, ecology, biology, biological control, etc.
- W.J. Mattsen, J. Leveux & C. Bernard-Dugan (Eds.), Mechanisms of Woody Plant Defenses Against Insects: Search for Pattern. Springer Verlag, Jan. 1988 (tentative). Approx 435 pp. A\$96. Basic physiological and ecological aspects, examples of free feeders and attached and embedded feeders.
- David J. Horn, Ecological Approach to Pest Management. xii + 276 pp. Elsevier, 1988. A\$90. Professional level overview.
- N. Bhushan Namdva and E. David Mergna (Eds) CRC Handbook of Natural Pesticides: Pheromones. Part A. Insect elicitation and molecular structure. Pheromones of Lepidoptera and Coleoptera. C.224 pp. Due March 1988. \$246.50.
Part B. Pheromones of Diptera, Hymenoptera, Isoptera and other insects. C.368 pp. Due March 1988. \$245.75. CRC Press Inc.
- A. Sees and L.Papp (Eds.), Catalogue of Palaearctic Diptera. Vol. 3. Ceratopogonidae - Mycetophilidae. Feb. 1988 (Approx). 220 pp. A\$169.25. Vol. 8. Syrphidae - Conopidae. April 1988 (Approx.). 450 pp. A\$297.00.
- Ross H. Arnett and Mary E. Arnett (Eds.), The Naturalists Directory and Almanac (International) 45th Edition 1988. Published winter 1987. A\$37.75. E.J. Brill Flora & Fauna Publications. US based list of naturalists of the world with addresses, interest statements, geographic and subject indices.
- Pierre Jelivet, Insects and Plants. Parallel Evolution and Adaptations. xii, 197 pp. E.J. Brill Flora and Fauna Handbooks No. 2. 1986. A\$31.00
- S.C. Willemstein, An Evolutionary Basis for Pollination Ecology. c.426 pp., E.J. Brill, Leiden Botanical Series 10, Summer 1987. A\$96.25. Feeding habits of flower visiting insects correlated with their phylogeny and fossil record and that of plants.
- J.C. Trage (Ed.), Advances in Myrmecology. c 520 pp., E.J.Brill. 1987. A\$82.75. 54 authors covering all aspects of ants.

R.H. Arnett, G.A. Samuelson, et al., The Insect and Spider Collections of the World. 220 pp., E.J. Brill. 1986 A\$31.00. Standard description of collections, their sizes, names of curators, notes on special collections, regions covered, &c. Private and public. Plus assigned 4 letter codens.

R.O. Drummond, J.E. George & S.E. Kunz (Eds.), Control of Arthropod Pests of Livestock: A Review of Technology. c272 pp., CRC Press Inc. Due 1988. A\$203.75. In depth review of literature documenting the development of control technology. Nasty stuff.

A.K. Minks and P. Harrewijn (Eds.), Aphids, Their Biology, Natural Enemies and Control. Volume B. 382 pp. Elsevier. 1988. A\$259.25. Part 2 of 3 volume work. Covers techniques, natural enemies.

A.P. Economopoulos, Fruit Flies. Proceedings 2nd International Symposium 16-21 Sept. 1986, Crete. 590 pp. Elsevier, 1987. \$145.75

G.A. Zakladnoi & V.F. Ratanova, Stored-grain Pests and Their Control. Transl. from Russian by I. Nair. 279 pp. A.A. Balkema Publishers, 1987. \$60.75.

G.A. Webb, Larval Host Plants of Cerambycidae (Coleoptera) held in Some Australian Insect Collections. Technical Paper No. 38 Forestry Commission of New South Wales, 1987. 19pp. Data labels recorded for longicorns in the Australian Museum, Aust. Nat. Insect Collection and FCNSW collection. Host plant list updates the botanical names on data labels.

C.N. Smithers, Four additional antlion records from Barrow Island Western Australia (Neuroptera: Myrmeleont.). P.2; New distribution records for Australian Chrysopidae (Neuroptera). p.35-8, Aust. ent. Mag. 15(1), March 1988

D.G. James, A new host plant for Junonia villida calybe (Godart) (Lepid:Nymphal.). P.6; Migration and behaviour of non-reproductive Danaus plexippus (L.) ... in the Blue Mountains, NSW. Pp.25-30; Induction of pupal diapause in Papilio aegaeus aegaeus Donovan and Graphium sarpedon choredon (C.&R. Felder) (Lepidop: Papilion). Pp.39-44, Aust. ent. Mag. 15(1)

D.C.F. Rentz, Nanophyllum pygmaeum Redtenbacher (Phasmatodea: Phylliidae), a leaf insect recently recognised in Australia. Aust. ent. Mag. 15(1):3-5. From Iron Range. Notes on biology.

R.I. Storey & T.A. Weir, New localities and biological notes for the genus Onthophagus Latreille (Coleopt: Scarabaeidae) in Australia. Aust. ent. Mag. 15(1):17-24. Mostly Qld & NT records for 25 species of dung beetles.

M. Schotz & D.P.A. Sands, Diel patterns of feeding and oviposition by Cyrtobagous salviniae Calder and Sands (Coleopt: Curcul). Aust. ent. Mag. 15(1):31-2. Feeding and oviposition found to be mainly nocturnal activities for the introduced salvinia weevil.

Recent Publications of Interest (continued)

M.F. Braby, New food plants for Jalmenus evagoras evagoras (Don.) (Lepidoptera: Llycaonidae). Aust. ent. Mag. 15(1):33-4. Acacia pycnantha and A. implexa at Macleod, Vic.

Division of Entomology, CSIRO, Biennial Report 1983-5. 1986. 129 pp., \$5.00, CSIRO Publications, Albert Street, East Melbourne. Packed with fascinating details of the Division's work, many interesting pictures, 11 pp list of publications, index. Not citeable but worthy of wider distribution.

A.D. Austin and N.W. Heather (Eds.), Australian Arachnology. Australian Entomological Society, Brisbane, 1988, Miscellaneous Publication No. 5. 137 pp. \$20.00 for AES Members, \$30.00 non-members. Available from Business Mgr, AES, C/O Dept. Primary Industries, Mairs Road, Indooroopilly, 4068. 11 papers from the Society's 1986 symposium covering systematics, ecology and behaviour of major arachnid groups in Australia, plus specific spider research projects.

D.B. McCorquodale and C.E. Thomson, A nest shared by the solitary wasps Cerceris antipodes Smith and C. australis Saussure (Sphecidae). J. Aust. ent. Soc. 27(1):9-10. At Brisbane Water NP, NSW.

M.W.J. Crosland, R.H. Crozier & H.T. Imai, Evidence for several sibling biological species centred on Myrmecia pilosula (Formicid.) J. Aust. ent. Soc. 27:13-14. Analysis of chromosome nos. of the common black Australian jumper ant.

R.D. Coles, F. Verberne & H.M. Brookes, The immature and adult stages of Callocooccus leptospermi (Maskell) (Coccoidea) with observations on life history. J. Aust. ent. Soc. 27:15-25. Scale insect that forms woody galls on stems of tea-tree in SE Australia.

E.B. Britton, Synopsis of the genera of Australian Heteronycini (Coleoptera: Scarabaeidae: Melolonthinae). J. Aust. ent. Soc. 27:27-36. Part of continuing review of subfamily commenced in 1957. 10 gen. incl. 4 new (Acheilo, Paraheteronyx, Proborhinus, Webbelln) with keys to Acheilo and Webbolla spp. and to genera.

Lionel Hill, The identity and biology of Baclozygum depressum Bergroth (Homiptera: Thaumastocoridae). J. Aust. ent. Soc. 27:37-42. pest

G. Viggiani & M. Carvor, Cales orchamoplati sp.n. (Hymenoptera: Aphelinidae) from Australia. J. Aust. ent. Soc. 27:43-5. Chalcidoid wasp parasite of white flies.

G.B. Smith, New species of Trinemura silvestri (Thysanura). J. Aust. ent. Soc. 27:47-52. 1 from caves, NSW and 1 leaf litter Norfolk Is.

J.F. Lawrence, Notes on the classification of some Australian Cucujoidea (Coleoptera). J. Aust. ent. Soc. 27:53-4. Nitidulidae, Phloeostichidae, Erotylidae (transfers from Pythidae, Cryptophagidae, Sylvanidae, Languriidae), synonyms, new combinations.

Recent Publications of Interest (continued)

G.A. Webb, The identity of Earinus purpureus Lea (Coleoptera: Cerambycidae). J.Aust.ent.Soc. 27(1):60. = Orodoros uniformis Blackb. n W.A. sp., figured.

N.J. Fletcher and M.M. Stevens, Key to the subfamilies and tribes of Australian Cicadellidae (Hemiptera:Hemiptera). J.Aust.ent.Soc. 27(1):61-7.

J. Kojima and K. Kojima, Three new species of Polistes Latreille (Hymenoptera:Vespidae) from Papua New Guinea with notes on the taxonomic status of the subgenus Stenopolistes Van der Vecht. J.Aust.ent.Soc. 27(1):69-80.

R.J. Bartell, T.E. Bellas and C.P. Whittle, Evidence for biological activity of two further alcohols in the sex pheromone of female Cydia pomonella (L.) (Lepidoptera:Tortricidae). J.Aust.ent.Soc. 27: 11-12. Male Codling moth responses to the chemicals.

ON THE GRAPEVINE (CONTINUED)

I had three weeks travelling in western and northern NSW in April and May. Insect highlights included a skipper at Broken Hill that looks suspiciously like an Ocybadistes and my first experience with Jalmenus icilius. Now I have to move house. This will probably mean smaller Victorian Entomologists until I get settled again, unless readers come to the party with more material.

DEADLINE FOR THE NEXT ISSUE IS FRIDAY 29 JULY 1988

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DIARY OF COMING EVENTS

Friday 17 June at 8 pm	- Special Meeting to consider Incorporation of the Society. Annual General Meeting. Elections. Presidential Address : Ken Walker - "Spiders and Insects"
15 July	- Council Meeting
19 August	- General Meeting
17 September	- Council Meeting

Scientific names contained in this document are not intended for permanent scientific record, and are not published for the purposes of nomenclature within the meaning of the International Code of Zoological Nomenclature, Article 8(b). Contributions are not refereed, and authors alone are responsible for the views expressed.



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